REMARKS

Applicants note their appreciation of Examiner Hon's cooperation in working on this application with their undersigned associate attorney. Applicants are submitting this amendment now, in advance of the interview that may take place upon the return from vacation of Examiner' Hon's supervisor, in order to avoid the necessity of paying a further extension of time fee. Applicants submitted an Associate Power of Attorney and Change of Address by fax on August 9, 2002, along with a draft amendment for the Examiner's consideration. This amendment includes the same claim amendments as the draft amendment of August 9, 2002.

The Action refers to applicants' communication of "17 January 2002." Applicants' last response was filed October 18, 2001, and should be the response on which the Examiner has acted. Perhaps applicants' response was delayed in the mails.

Applicants have amended the claims above to improve and clarify their language without narrowing the scope of the claims and without regard to the prior art. The amendment to claim 146 overcomes the rejections of claim 146 under 35 USC 112, first and second paragraphs. It should be apparent that the temperatures were inadvertently transposed. The melting point range of the low melting point polyethylene of the second thermoplastic film is disclosed at page 11, lines 26-28, and the melting point range of the high melting point polyethylene of the first thermoplastic film is disclosed at page 12, lines 18-20. Withdrawal of the rejections under 35 USC 112 is respectfully requested.

Claims 24-99 stand rejected under 35 USC 103(a) in Iioka in view of Herman for the reasons set forth in the previous Action (Paper No. 8). In Paper No. 8 the Examiner read Iioka as follows:

> Iioka et al. have a heat-insulating paper container which has a thick foamed heat-insulating layer in the area of the outer surface of the body member which has been provided with printing of an organic solvent based ink whereas a less thick foamed heat-insulating layer is formed in the non-printed area of said outer surface. It would have been obvious to one of ordinary skill in the art to have printed the ink on top of the foam insulated area as a variation of the design of Iioka et al. since printing ontop [sic, on top] of the foamed insulation is well known in the art. The ink to be used in printing is of such a type that very small

> amounts of solvent components remain in the printed surface to accelerate foam forming (column 4, lines 17-29) and to allow for the expansion of the ink along with the expansion of the film.

The Examiner cites Herman only for its disclosure of the properties of LDPE and MDPE. This rejection and its supporting reasoning are respectfully traversed.

Applicants agree with the Examiner that Iioka does not disclose placing the expandable ink on top of the expandable polyethylene layer. The Examiner does not point to any evidence in Iioka or anywhere else, however, to support the factual proposition on which the obviousness rejection hinges, that "printing ontop [sic, on top] of the foamed insulation is well known in the art." If the Examiner cannot cite evidence and make findings based on such evidence that (a) such printing was in fact well known at the time the invention was made *and* (b) persons of ordinary skill in the art would specifically have been motivated by what is stated in the prior art to print with expandable ink on top of instead of (or in addition to) underneath the portions of the polyethylene layer to be expanded as disclosed in Iioka, this rejection cannot stand.

Under the applicable law, the Administrative Procedure Act, the PTO is required to create a written record containing the factual findings necessary to support an obviousness rejection and the evidence in the record on which the findings are based. As explained by the court in *In re Lee*, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002) (copy attached for Examiner's reference), "When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness." The court in *Lee* emphasized the need for specificity in both evidence and findings, *id.*, and further explained that neither "common knowledge" nor "common sense" can be relied upon to support an obviousness rejection in the absence of evidence of motivation to combine or modify the teachings of the prior art. 61 USPQ2d at 1435. If the Examiner believes that there is evidence beyond what Iioka says that supports the rejection, then the Examiner must make that evidence of record and make reviewable findings based on it. There is no such

evidence in this record. For this reason alone, the rejection of claims 24-99 on Iioka in view of Herman is untenable as a matter of law and should be withdrawn.

Iioka's disclosure is not at all the same as this invention -- it relates to a method of providing a cup surface having variable degrees of foaming depending on whether ink is printed under the polyethylene film or not. In those places where Iioka's base paper is printed with ink containing residual organic solvent, the polyethylene will foam; where it is not printed, the polyethylene does not foam much if at all. There is nothing in Iioka that indicates that this differential foaming will work if the ink is on top of, instead of underneath, the expandable polyethylene layer.

Furthermore, there would have been no reason apparent from Iioka to print on top of as well as below the expandable polyethylene layer. As explained at column 2, lines 44-48 of Iioka, "As a matter of fact, the experiment conducted by the present inventors showed that the film in printed areas having adhesive strengths of 10-50 gf foamed to a thickness about 3 times as great as the film that foamed in non-printed areas having adhesive strengths of 200 gf or more." The adhesive strength referred to in this passage is the adhesive strength between the paper container substrate and the polyethylene layer – ink printed on top of the polyethylene layer would have no effect on the adhesion between the paper substrate and the polyethylene layer at all. Persons of ordinary skill in the art would have recognized from this passage that the differential foaming effect disclosed in Iioka depends *only* on the ink layer between the paper substrate and the expandable polyethylene layer. Thus, even if printing on top of an expandable polyethylene had been known in the art, there would have been no reason to do so that is apparent from Iioka itself (and without using applicants' disclosure as a hindsight guide to the invention).

Finally, the Examiner seems to assume that Iioka's inks expand compatibly with the expansion of the polyethylene layer.[1] Although Iioka's inks as disclosed at col. 4, lines 16-38, contain the same solvents as are disclosed on page 17 of the application, Iioka says at column 4, lines 17-40, that the type of ink to be used is not limited as long as enough solvent remains to allow for the selective foaming of the polyethylene outer layer. Iioka says nothing about whether the inks should expand with the expansion of the polyethylene film under which they are printed, as there is no need for such expansion. Therefore, Iioka does not disclose or suggest the use of any compatibly expanding ink and would not have motivated anyone of ordinary skill in the art to think of printing on top of the polyethylene film.

For all of these reasons, the rejection of claims 24-99 under 35 USC 103(a) on Iioka in view of Herman should be withdrawn.

Claims 145 and 146 stand rejected under 35 USC 103(a) on Iioka in view of Herman and Kallander. This rejection should be withdrawn because Iioka does not provide the disclosure for which it is cited. Furthermore, applicants respectfully submit that the Examiner has misread Kallander. This reference does not disclose printing onto the surface of a stock material or finished article as claimed. The ink is used between a foam layer and a release sheet so as to transfer from the release sheet to the foam when they are separated. The ink is not printed onto a foam layer that is already attached to a base paper as claimed. Furthermore, the environment of Kallander is so different from Iioka's that no person of ordinary skill in the art would have looked to Kallander to solve any problem with the structures disclosed in Iioka or *vice versa*.

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[1] To the extent the rejection might be based on the Examiner's finding of alleged inherent disclosure in Iioka of the claimed ink, it is unsupported by the evidentiary record and should be withdrawn. If the Examiner seeks to rely on "official notice" to make up for the lack of evidence of obviousness in Iioka, the patent owner challenges any such assertion. Furthermore, just because something might be inherent in a reference does not mean that persons of ordinary skill in the art would have recognized the existence of that disclosure or would have been motivated by it to make the claimed invention. As explained at MPEP 2141.02, "Obviousness cannot be predicated on what is not known at the time an invention is made, even if the inherency of a certain feature is later established."

Early action allowing claims 24-99, 145 and 146 is solicited.

Attached hereto is a marked-up version of the changes made to the claims by this amendment, captioned "**Version with markings to show changes made**".

In the event that the Patent and Trademark Office determines that a further extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing Docket No. 530172000100.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Amend claims 24, 25, 34-46, 55-80 and 146 as follows:

24. (Thrice Amended) Stock material for a container body of an insulating paper container, [said stock material] comprising:

a base paper;

a first thermoplastic synthetic resin film laminated on [the] an inner wall surface of said base paper;

a second thermoplastic synthetic resin film laminated on [the] an outer wall surface of said base paper wherein said second thermoplastic synthetic resin film is expandable by heat treatment; and

an ink[,] which [follows] expands commensurately with the expansion of said second thermoplastic film[,] applied on an outer surface of the second thermoplastic resin film.

25. (Thrice Amended) Stock material according to claim 24, wherein said [compatibly expansile] ink is applied as a primer on the [upper] outer surface of the second thermoplastic synthetic resin film [being expandable by heat treatment as a primer].

34. (Twice Amended) The stock material according to claim 24, wherein the second thermoplastic synthetic resin film [being expandable by heat treatment] is made of a low density polyethylene having a [MFR (melt flow rate)] melt flow rate of 8-15 g/10 min and a thickness of 0.03 -0.07 mm.

35. (Twice Amended) The stock material according to claim 25, wherein the second thermoplastic synthetic resin film [being expandable by heat treatment] is made of a low density polyethylene having a [MFR (melt flow rate)] melt flow rate of 8-15 g/10 min and a thickness of 0.03 -0.07 mm.

36. (Twice Amended) The stock material according to claim 26, wherein the second thermoplastic synthetic resin film [being expandable by heat treatment] is made of a low density

polyethylene having a [MFR (melt flow rate)] melt flow rate of 8-15 g/10 min and a thickness of 0.03 -0.07 mm.

37. (Twice Amended) The stock material according to claim 27, wherein the second thermoplastic synthetic resin film [being expandable by heat treatment] is made of a low density polyethylene having a [MFR (melt flow rate)] melt flow rate of 8-15 g/10 min and a thickness of 0.03 -0.07 mm.

38. (Twice Amended) The stock material according to claim 30, wherein the second thermoplastic synthetic resin film [being expandable by heat treatment] is made of a low density polyethylene having a [MFR (melt flow rate)] melt flow rate of 8-15 g/10 min and a thickness of 0.03 -0.07 mm.

39. (Twice Amended) The stock material according to claim 24, wherein the first thermoplastic synthetic resin film [being unexpandable] is not expandable by heat treatment and is made of a medium density polyethylene having a [MFR (melt flow rate)] melt flow rate of 4-8 g/10 min.

40. (Twice Amended) The stock material according to claim 25, wherein the first thermoplastic synthetic resin film [being unexpandable] is not expandable by heat treatment and is made of a medium density polyethylene having a [MFR (melt flow rate)] melt flow rate of 4-8 g/10 min.

41. (Twice Amended) The stock material according to claim 26, wherein the first thermoplastic synthetic resin film [being unexpandable] is not expandable by heat treatment and is made of a medium density polyethylene having a [MFR (melt flow rate)] melt flow rate of 4-8 g/10 min.

42. (Twice Amended) The stock material according to claim 27, wherein the first thermoplastic synthetic resin film [being unexpandable] is not expandable by heat treatment and is made of a medium density polyethylene having a [MFR (melt flow rate)] melt flow rate of 4-8 g/10 min.

43. (Twice Amended) The stock material according to claim 30, wherein the first thermoplastic synthetic resin film [being unexpandable] is not expandable by heat treatment and is made of a medium density polyethylene having a [MFR (melt flow rate)] melt flow rate of 4-8 g/10 min.

44. (Twice Amended) The stock material according to claim 34, wherein the first thermoplastic synthetic resin film [being unexpandable] is not expandable by heat treatment and is made of a medium density polyethylene having a [MFR (melt flow rate)] melt flow rate of 4-8 g/10 min.

45. (Thrice Amended) An insulating paper container [generally] comprising:

a container body and a bottom wall[, said insulating paper container further comprising:];

a first thermoplastic synthetic resin film laminated on [the] an inner wall surface of a base paper [for] of said container body and said bottom wall;

a second thermoplastic synthetic resin film laminated on [the] an outer wall surface of said base paper [for] of said container body; and

an ink[,] which [follows the] expands commensurately with expansion of said second thermoplastic film[,] applied on [the] an outer surface of the second thermoplastic resin film so that said ink [may follow] follows the expansion of said second thermoplastic synthetic resin film; [and]

wherein said second thermoplastic synthetic resin film is expanded.

46. (Thrice Amended) The insulating paper container according to claim 45, wherein the [upper] outer surface of the second thermoplastic synthetic resin layer [being] is expandable by heating treatment [is] and has applied thereto said ink as a primer.

55. (Twice Amended) The insulating paper container according to claim 45, wherein the second thermoplastic synthetic resin film is laminated on [the] an outer wall surface of the base paper [for] of the bottom wall and said second thermoplastic synthetic resin film is expanded by subjecting the [lamination] outer wall surface of the base paper of the bottom wall to heating treatment.

56. (Twice Amended) The insulating paper container according to claim 46, wherein the second thermoplastic synthetic resin film is laminated on [the] an outer wall surface of the base paper [for] of the bottom wall and said second thermoplastic synthetic resin film is expanded by subjecting the [lamination] outer wall surface of the base paper of the bottom wall to heating treatment.

57. (Twice Amended) The insulating paper container according to claim 47, wherein the second thermoplastic synthetic resin film is laminated on [the] an outer wall surface of the base paper [for] of the bottom wall and said second thermoplastic synthetic resin film is expanded by subjecting the [lamination] outer wall surface of the base paper of the bottom wall to heating treatment.

58. (Twice Amended) The insulating paper container according to claim 48, wherein the second thermoplastic synthetic resin film is laminated on [the] an outer wall surface of the base paper [for] of the bottom wall and said second thermoplastic synthetic resin film is expanded by subjecting the [lamination] outer wall surface of the base paper of the bottom wall to heating treatment.

59. (Twice Amended) The insulating paper container according to claim 51, wherein the second thermoplastic synthetic resin film is laminated on [the] an outer wall surface of the base paper [for] of the bottom wall and said second thermoplastic synthetic resin film is expanded by subjecting the [lamination] outer wall surface of the base paper of the bottom wall to heating treatment.

60. (Twice Amended) The insulating paper container according to claim 45, wherein the second thermoplastic synthetic resin film is further laminated on [the upper] an outer surface of the first thermoplastic synthetic resin film on the base paper of the bottom wall [which is unexpanded even by heat treatment, said first thermoplastic synthetic resin film, in turn, being laminated on the inner wall surface of the base paper for the bottom wall of the insulating paper container], and wherein the second thermoplastic synthetic resin film laminated on the base

paper of the container body [of the insulating paper container] is expanded by subjecting the lamination to heating.

61. (Twice Amended) The insulating paper container according to claim 46, wherein the second thermoplastic synthetic resin film is further laminated on [the upper] an outer surface of the first thermoplastic synthetic resin film on the base paper of the bottom wall [which is unexpanded even by heat treatment, said first thermoplastic synthetic resin film, in turn, being laminated on the inner wall surface of the base paper for the bottom wall of the insulating paper container], and wherein the second thermoplastic synthetic resin film laminated on the base paper of the container body [of the insulating paper container] is expanded by subjecting the lamination to heating.

62. (Twice Amended) The insulating paper container according to claim 47, wherein the second thermoplastic synthetic resin film is further laminated on [the upper] an outer surface of the first thermoplastic synthetic resin film on the base paper of the bottom wall [which is unexpanded even by heat treatment, said first thermoplastic synthetic resin film, in turn, being laminated on the inner wall surface of the base paper for the bottom wall of the insulating paper container], and wherein the second thermoplastic synthetic resin film laminated on the base paper of the container body [of the insulating paper container] is expanded by subjecting the lamination to heating.

63. (Twice Amended) The insulating paper container according to claim 48, wherein the second thermoplastic synthetic resin film is further laminated on [the upper] an outer surface of the first thermoplastic synthetic resin film on the base paper of the bottom wall [which is unexpanded even by heat treatment, said first thermoplastic synthetic resin film, in turn, being laminated on the inner wall surface of the base paper for the bottom wall of the insulating paper container], and wherein the second thermoplastic synthetic resin film laminated on the base paper of the container body [of the insulating paper container] is expanded by subjecting the lamination to heating.

64. (Twice Amended) The insulating paper container according to claim 51, wherein the second thermoplastic synthetic resin film is further laminated on [the upper] an outer surface of the first thermoplastic synthetic resin film on the base paper of the bottom wall [which is unexpanded even by heat treatment, said first thermoplastic synthetic resin film, in turn, being laminated on the inner wall surface of the base paper for the bottom wall of the insulating paper container], and wherein the second thermoplastic synthetic resin film laminated on the base paper of the container body [of the insulating paper container] is expanded by subjecting the lamination to heating.

65. (Twice Amended) The insulating paper container according to claim 55, wherein the second thermoplastic synthetic resin film is further laminated on [the upper] an outer surface of the first thermoplastic synthetic resin film on the base paper of the bottom wall [which is unexpanded even by heat treatment, said first thermoplastic synthetic resin film, in turn, being laminated on the inner wall surface of the base paper for the bottom wall of the insulating paper container], and wherein the second thermoplastic synthetic resin film laminated on the base paper of the container body [of the insulating paper container] is expanded by subjecting the lamination to heating.

66. (Twice Amended) The insulating paper container according to claim 45, wherein the second thermoplastic synthetic resin film is expandable by heat treatment and is made of a low density polyethylene having a [MFR (melt flow rate)] melt flow rate of 8-15 g/10 min and a thickness of 0.03 -0.07 mm.

67. (Twice Amended) The insulating paper container according to claim 46, wherein the second thermoplastic synthetic resin film is expandable by heat treatment and is made of a low density polyethylene having a [MFR (melt flow rate)] melt flow rate of 8-15 g/10 min and a thickness of 0.03 -0.07 mm.

68. (Twice Amended) The insulating paper container according to claim 47, wherein the second thermoplastic synthetic resin film is expandable by heat treatment and is made of a low

density polyethylene having a [MFR (melt flow rate)] melt flow rate of 8-15 g/10 min and a thickness of 0.03 -0.07 mm.

69. (Twice Amended) The insulating paper container according to claim 48, wherein the second thermoplastic synthetic resin film is expandable by heat treatment and is made of a low density polyethylene having a [MFR (melt flow rate)] melt flow rate of 8-15 g/10 min and a thickness of 0.03 -0.07 mm.

70. (Twice Amended) The insulating paper container according to claim 51, wherein the second thermoplastic synthetic resin film is expandable by heat treatment and is made of a low density polyethylene having a [MFR (melt flow rate)] melt flow rate of 8-15 g/10 min and a thickness of 0.03 -0.07 mm.

71. (Twice Amended) The insulating paper container according to claim 55, wherein the second thermoplastic synthetic resin film is expandable by heat treatment and is made of a low density polyethylene having a [MFR (melt flow rate)] melt flow rate of 8-15 g/10 min and a thickness of 0.03 -0.07 mm.

72. (Twice Amended) The insulating paper container according to claim 60, wherein the second thermoplastic synthetic resin film is expandable by heat treatment and is made of a low density polyethylene having a [MFR (melt flow rate)] melt flow rate of 8-15 g/10 min and a thickness of 0.03 -0.07 mm.

73. (Twice Amended) The insulating paper container according to claim 45, wherein the first thermoplastic synthetic resin film [being unexpandable] is not expandable by heat treatment and is made of a medium density polyethylene having a [MFR (melt flow rate)] melt flow rate of 4-8 g/10 min.

74. (Twice Amended) The insulating paper container according to claim 46, wherein the first thermoplastic synthetic resin film [being unexpandable] is not expandable by heat treatment and is made of a medium density polyethylene having a [MFR (melt flow rate)] melt flow rate of 4-8 g/10 min.

75. (Twice Amended) The insulating paper container according to claim 47, wherein the first thermoplastic synthetic resin film [being unexpandable] is not expandable by heat treatment and is made of a medium density polyethylene having a [MFR (melt flow rate)] melt flow rate of 4-8 g/10 min.

76. (Twice Amended) The insulating paper container according to claim 48, wherein the first thermoplastic synthetic resin film [being unexpandable] is not expandable by heat treatment and is made of a medium density polyethylene having a [MFR (melt flow rate)] melt flow rate of 4-8 g/10 min.

77. (Twice Amended) The insulating paper container according to claim 51, wherein the first thermoplastic synthetic resin film [being unexpandable] is not expandable by heat treatment and is made of a medium density polyethylene having a [MFR (melt flow rate)] melt flow rate of 4-8 g/10 min.

78. (Twice Amended) The insulating paper container according to claim 55, wherein the first thermoplastic synthetic resin film [being unexpandable] is not expandable by heat treatment and is made of a medium density polyethylene having a [MFR (melt flow rate)] melt flow rate of 4-8 g/10 min.

79. (Twice Amended) The insulating paper container according to claim 60, wherein the first thermoplastic synthetic resin film [being unexpandable] is not expandable by heat treatment and is made of a medium density polyethylene having a [MFR (melt flow rate)] melt flow rate of 4-8 g/10 min.

80. (Twice Amended) The insulating paper container according to claim 66, wherein the first thermoplastic synthetic resin film [being unexpandable] is not expandable by heat treatment and is made of a medium density polyethylene having a [MFR (melt flow rate)] melt flow rate of 4-8 g/10 min.

146. (Amended) The stock material of claim 145, wherein the first thermoplastic synthetic resin has a melting point of from [105°C to 110°C] 130°C to 135°C[,] and the second thermoplastic synthetic resin film has a melting point of from [105°C to 110°C] 105°C to 110°C.